LGR-ICOS™ GLA131 Series
Microportable Methane Analyzer

Sensitive, fast and compact analyzer for field measurement of CH₄
Measurement made easy

Features and benefits

- Lightweight: ~6kg with 99.9Wh battery (included)
- Continuous measurements
- CH₄ reported at 10 Hz
- Extremely wide linear range: CH₄ concentration from ppb to up to 500 ppm (optional)
- No cross interferences
- Operates directly on DC power
- Fast gas flow response time (1 seconds, 1/e)
- Records data within 20 seconds after power on
- Multiple data outputs and internet connectivity

Overview

The ABB LGR-ICOS gas analyzers build on the heritage and extensive track record of Los Gatos Research analyzers, using patented Off-Axis Integrated Cavity Output Spectroscopy (OA-ICOS) technology, the latest evolution in tunable diode laser absorption spectroscopy.

ABB’s Microportable Methane Analyzer (M-CH4-918) reports measurements of methane in a package that is compact, crushproof and travels anywhere. Small enough to be hand-carried (even on-board aircraft) and requiring less than 24 watts, the M-CH4-918 offers opportunities to measure methane anywhere.

As with all LGR-ICOS analyzers, the M-CH4-918 is fast and simple to use which makes it ideal for natural gas leak detection and other field studies, compliance monitoring and air quality studies, and wherever sensitive measurements of methane are needed quickly.
… Overview

The M-CH4-918 begins recording data within 20 seconds after power on so users do not have to wait for a long warm-up period for the system to thermally equilibrate.

Furthermore, the “Extended Range” option provides accurate methane measurements at levels up to 500 ppm (without dilution) without reducing sensitivity at typical ambient levels - a unique capability. Moreover, only LGR-ICOS analyzers provide reliable measurements at concentrations greater than 1000 times ambient levels.

ABB’s patented OA-ICOS technology, a fourth-generation cavity enhanced absorption technique, has many advantages over older, conventional and delicate cavity ringdown spectroscopy and direct absorption techniques. LGR-ICOS analyzers are easier to operate and more robust, thus providing users with higher performance and reliability at lower operating costs.

The M-CH4-918 analyzer has an internal computer that can store data practically indefinitely on an SD card and send real time data to a tablet, smartphone or other WiFi device. The analyzer includes control and analysis software.

Accessories, Maintenance & Options

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<td>Accessory kit for microportable includes shoulder strap and collapsible wand</td>
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<td>AC Power adapter for microportable</td>
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<td>ACC-WIFI-iPad</td>
<td>Wireless Interface - Apple iPad with WiFi router provides full instrument control and provides touch-screen video display, keyboard and mouse.</td>
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<td>ACC-WIFI-Android</td>
<td>Wireless User Interface - Samsung Galaxy Tab S3 with WiFi router provides full instrument control and provides touch-screen video display, keyboard and mouse.</td>
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<td>OPT-EXTENDED-CH4</td>
<td>Extended range for methane Extends the range from 0-100 ppm to 0-500 ppm</td>
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<td>MTN-DPI-131V2</td>
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<td>MIU-8</td>
<td>Multiport Inlet Unit 8 channels - External hardware (includes 8 solenoid valves) and internal software package which enables fully integrated, programmable selection from up to 8 separate sources.</td>
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Ordering information

- LGR-ICOS™ M-CH4-918

Specifications

**Precision (1σ, 1 sec / 10 sec / 100 sec):**
- CH₄: 4 ppb / 1.2 ppb / 0.5 ppb

**Measurement rate:**
- 0.01 – 10 Hz (user selectable)

**Measurement ranges (meets all specifications):**
- CH₄: 0 – 100 ppm (standard range)
- CH₄: 0 – 500 ppm (extended range option)

**Sampling conditions:**
- Sample temperature: -40 – 50 °C
- Operating temperature: 5 – 45 °C
- Ambient humidity: 0 - 98% relative humidity non-condensing

**Flow time response:**
- 1 seconds (1/e)

**Data outputs:**
- WiFi, Ethernet, USB, MIU connection (8 ports), Serial(RS-232)

**Power requirements:**
- 11-30 VDC or 110/240 VAC
- <24 watts
- 100W Power supply/charger included

**Dimensions:**
- 12cm H x 34 cm W x 29.5 cm D
- 6 in. H x 13.4 in. W x 11.6 in. D

**Weight:**
- 6.1 kg (13.5 pounds) with internal 99.9Wh battery